

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN103118\  
 Data File : VN052079.D  
 Acq On : 31 Oct 2018 17:38  
 Operator : MD\SY  
 Sample : PB114328ZHE#09  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 15 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Nov 01 01:43:30 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N103018W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Oct 31 02:45:22 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 295410   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 543360   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 516311   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 203036   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |       |     |          |       |         |      |
|---------------------------|-------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03  | 65  | 252969   | 53.36 | ug/l    | 0.00 |
| Spiked Amount             |       |     |          |       |         |      |
|                           |       |     | Recovery | =     | 106.72% |      |
| 35) Dibromofluoromethane  | 7.59  | 113 | 208143   | 61.23 | ug/l    | 0.00 |
| Spiked Amount             |       |     |          |       |         |      |
|                           |       |     | Recovery | =     | 122.46% |      |
| 50) Toluene-d8            | 10.09 | 98  | 825062   | 60.73 | ug/l    | 0.00 |
| Spiked Amount             |       |     |          |       |         |      |
|                           |       |     | Recovery | =     | 121.46% |      |
| 62) 4-Bromofluorobenzene  | 12.40 | 95  | 281668   | 56.47 | ug/l    | 0.00 |
| Spiked Amount             |       |     |          |       |         |      |
|                           |       |     | Recovery | =     | 112.94% |      |

## Target Compounds

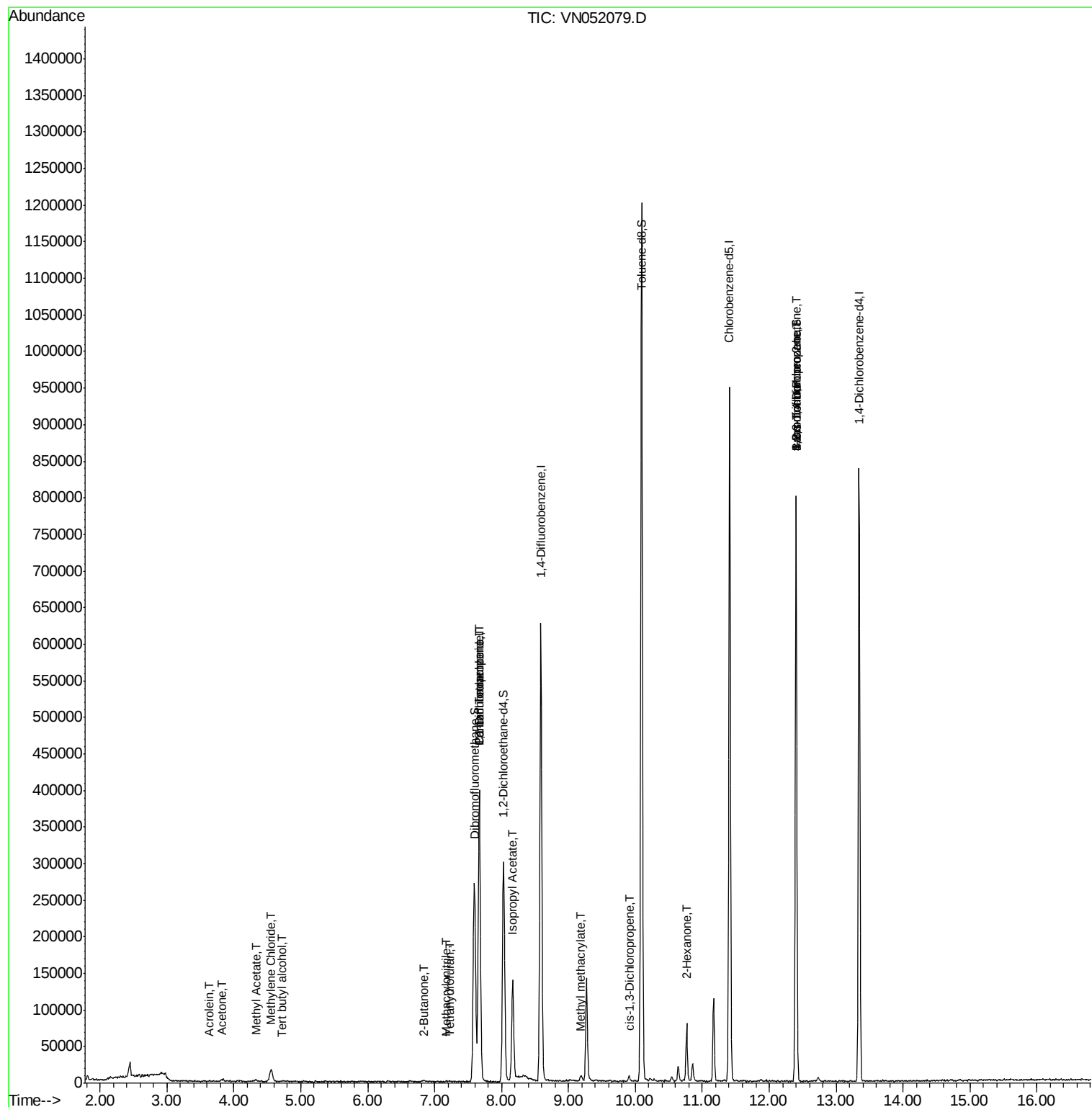
|                                |       |     |        |           | Qvalue |     |
|--------------------------------|-------|-----|--------|-----------|--------|-----|
| 11) Tert butyl alcohol         | 4.72  | 59  | 67     | 0.282     | ug/l # | 76  |
| 13) Acrolein                   | 3.62  | 56  | 32     | 24.159    | ug/l # | 1   |
| 16) Acetone                    | 3.82  | 43  | 4904   | 4.846     | ug/l   | 99  |
| 18) Methyl Acetate             | 4.32  | 43  | 1285   | 0.399     | ug/l # | 55  |
| 20) Methylene Chloride         | 4.56  | 84  | 12818  | 3.324     | ug/l # | 86  |
| 25) 2-Butanone                 | 6.84  | 43  | 640    | 0.403     | ug/l # | 50  |
| 29) Tetrahydrofuran            | 7.23  | 42  | 296    | 0.280     | ug/l # | 73  |
| 31) Cyclohexane                | 7.66  | 56  | 3652   | Below Cal | #      | 1   |
| 36) 1,1-Dichloropropene        | 7.67  | 75  | 26301  | 4.760     | ug/l # | 51  |
| 38) Carbon Tetrachloride       | 7.67  | 117 | 31227  | 6.555     | ug/l # | 16  |
| 41) Methacrylonitrile          | 7.18  | 41  | 314    | 0.306     | ug/l # | 15  |
| 43) Isopropyl Acetate          | 8.17  | 43  | 173046 | 26.310    | ug/l   | 98  |
| 48) Methyl methacrylate        | 9.18  | 41  | 4447   | 1.334     | ug/l # | 20  |
| 54) cis-1,3-Dichloropropene    | 9.90  | 75  | 1503   | 0.241     | ug/l # | 47  |
| 59) 2-Hexanone                 | 10.76 | 43  | 11398  | 4.474     | ug/l # | 57  |
| 71) Bromoform                  | 12.39 | 173 | 822    | 2.536     | ug/l # | 29  |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75  | 143927 | 38.725    | ug/l # | 100 |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75  | 143927 | 128.534   | ug/l # | 9   |

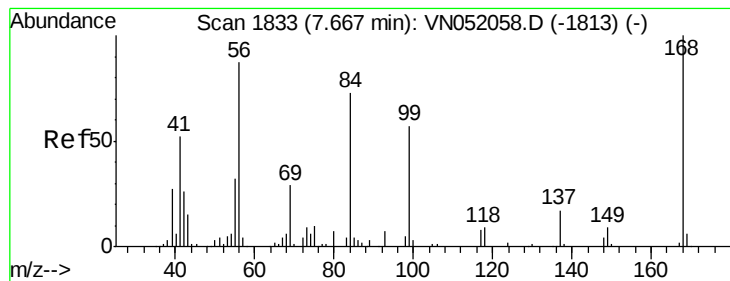
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA N\DATA\VN103118\  
Data File : VN052079.D  
Acq On : 31 Oct 2018 17:38  
Operator : MD\SY  
Sample : PB114328ZHE#09  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 15 Sample Multiplier: 28

Instrument :  
MSVOA\_N  
ClientSampleId :

Quant Time: Nov 01 01:43:30 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N103018W.M  
Quant Title : SW846 8260  
QLast Update : Wed Oct 31 02:45:22 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.67 min Scan# 1833

Delta R.T. 0.00 min

Lab File: VN052079.D

Acq: 31 Oct 2018 17:38

Instrument :

MSVOA\_N

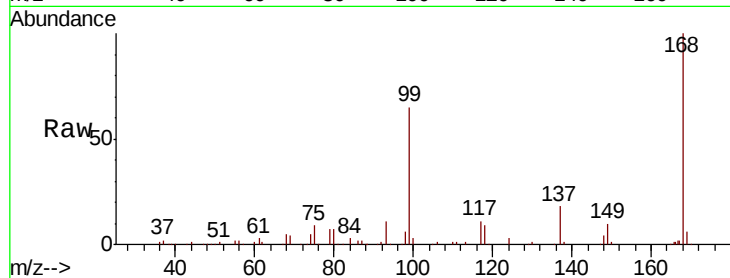
ClientSampleId :

Tot Ion:168 Resp: 295410

Ion Ratio Lower Upper

168 100

99 64.5 56.6 85.0



Abundance Ion 167.90 (167.60 to 168.60): VN052058.D (-1813) (-)

Ion 98.90 (98.60 to 99.60): VN052058.D (-1813) (-)

7.67

150000

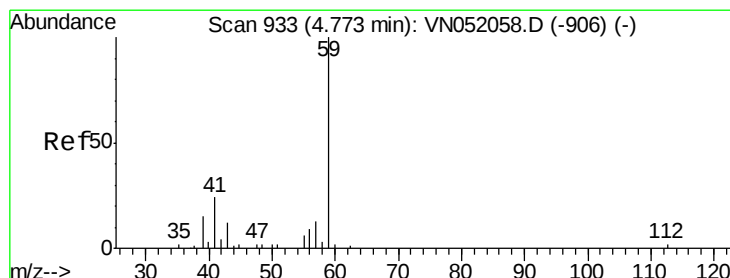
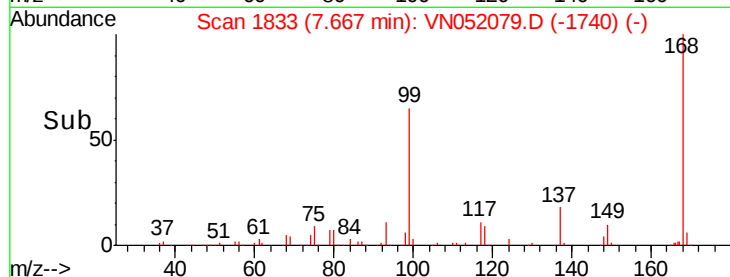
100000

50000

0

Time-->

7.60 7.70 7.80



#11

Tert butyl alcohol

Concen: 0.282 ug/l

RT: 4.72 min Scan# 916

Delta R.T. -0.05 min

Lab File: VN052079.D

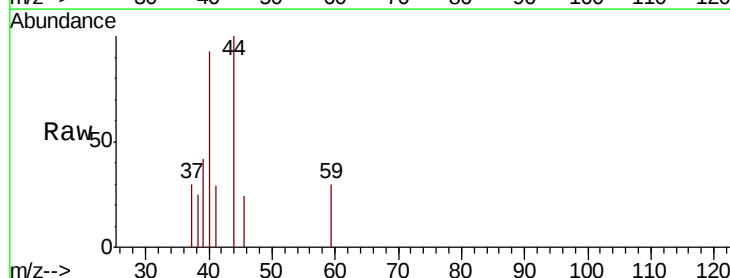
Acq: 31 Oct 2018 17:38

Tgt Ion: 59 Resp: 67

Ion Ratio Lower Upper

59 100

57 0.0 7.0 10.6#



Abundance Ion 59.00 (58.70 to 59.70): VN052058.D (-906) (-)

Ion 57.00 (56.70 to 57.70): VN052058.D (-906) (-)

4.72

200

150

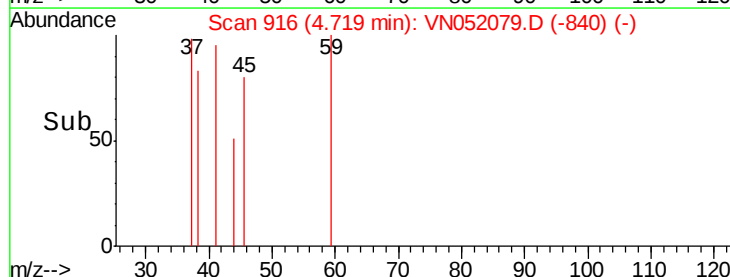
100

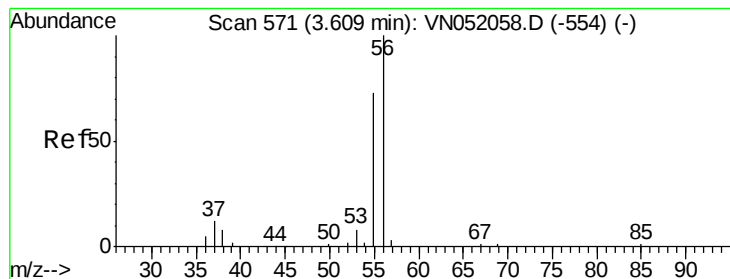
50

0

Time-->

4.71 4.72 4.73





#13

Acrolein

Concen: 24.159 ug/l

RT: 3.62 min Scan# 573

Delta R.T. 0.01 min

Lab File: VN052079.D

Acq: 31 Oct 2018 17:38

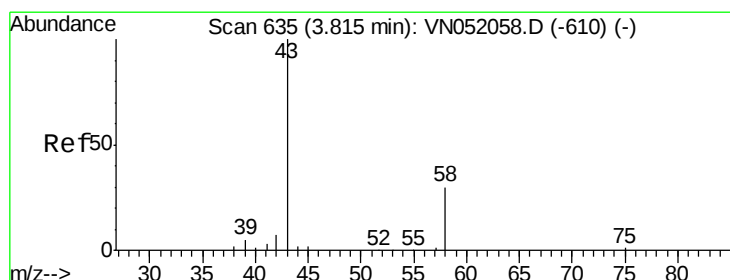
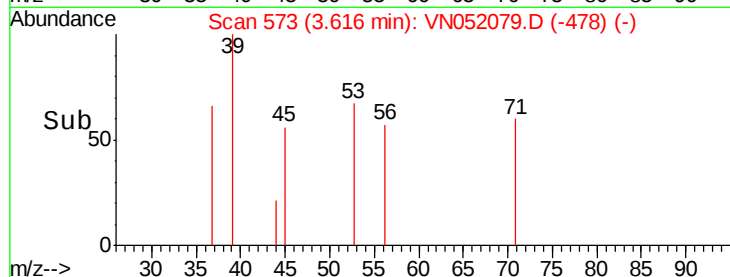
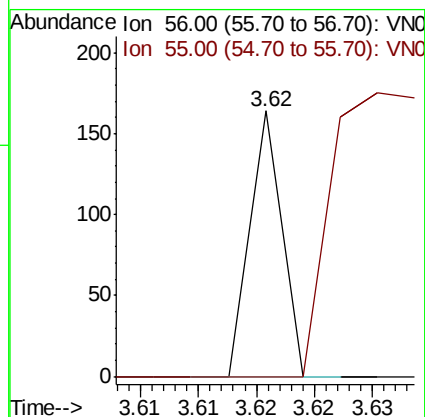
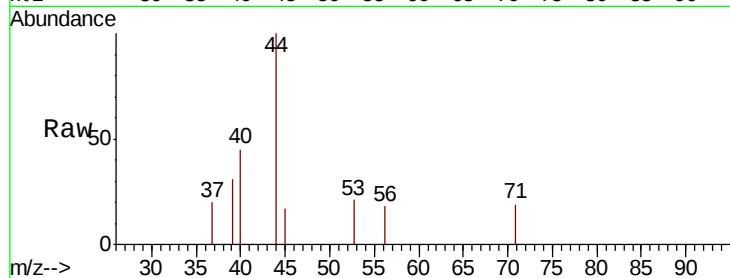
Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion: 56 Resp: 32

Ion Ratio Lower Upper

56 100

55 306.3 59.9 89.9#



#16

Acetone

Concen: 4.846 ug/l

RT: 3.82 min Scan# 637

Delta R.T. 0.01 min

Lab File: VN052079.D

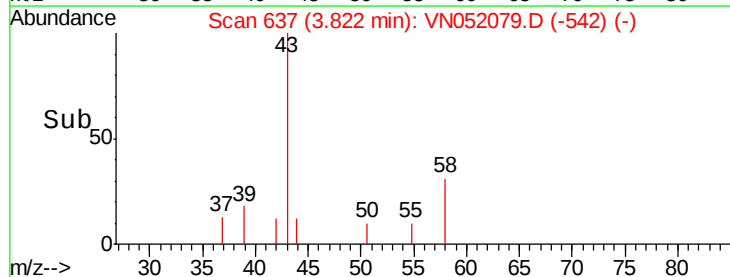
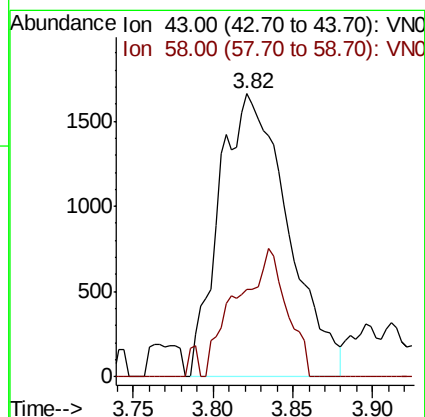
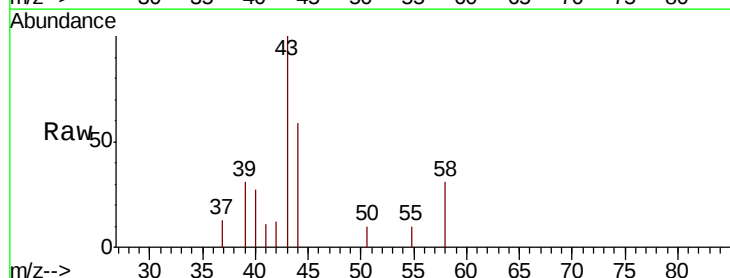
Acq: 31 Oct 2018 17:38

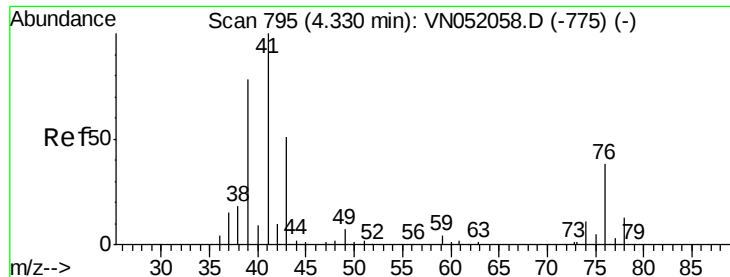
Tgt Ion: 43 Resp: 4904

Ion Ratio Lower Upper

43 100

58 30.8 24.2 36.2

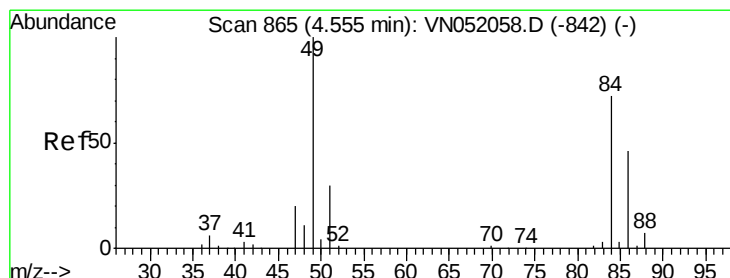
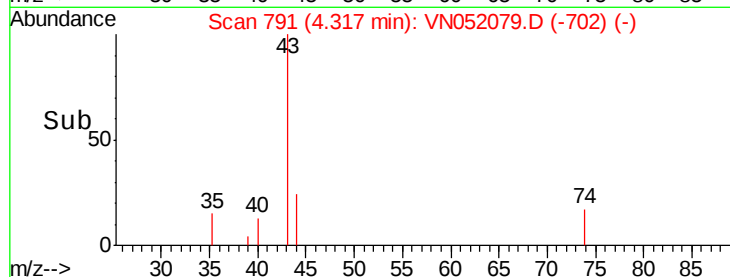
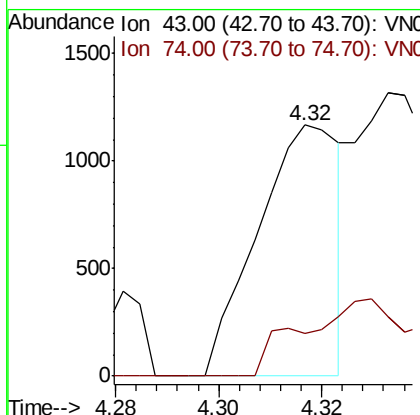
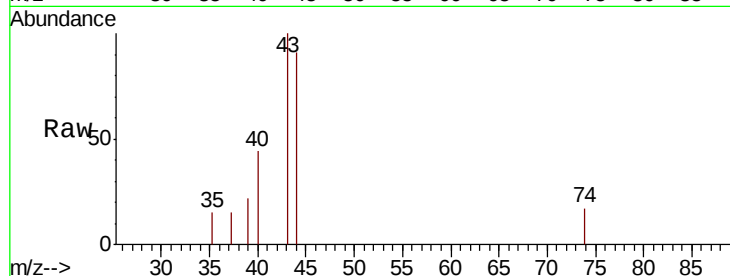




#18  
Methvl Acetate  
Concen: 0.399 ug/l  
RT: 4.32 min Scan# 791  
Delta R.T. -0.01 min  
Lab File: VN052079.D  
Acq: 31 Oct 2018 17:38

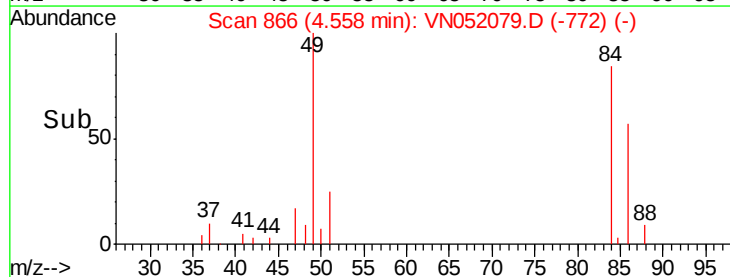
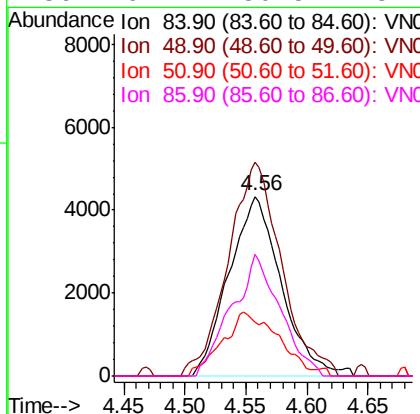
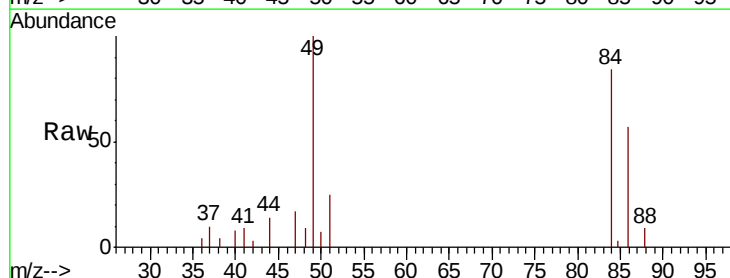
Instrument :  
MSVOA\_N  
ClientSampled :

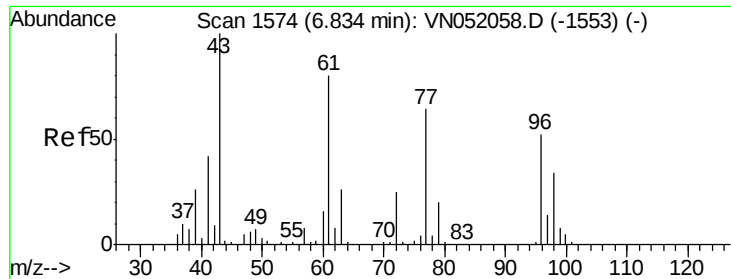
Tot Ion: 43 Resp: 1285  
Ion Ratio Lower Upper  
43 100  
74 44.1 17.9 26.9#



#20  
Methylene Chloride  
Concen: 3.324 ug/l  
RT: 4.56 min Scan# 866  
Delta R.T. 0.00 min  
Lab File: VN052079.D  
Acq: 31 Oct 2018 17:38

Tgt Ion: 84 Resp: 12818  
Ion Ratio Lower Upper  
84 100  
49 119.0 110.6 165.8  
51 29.6 33.7 50.5#  
86 67.7 50.5 75.7





#25

2-Butanone

Concen: 0.403 ug/l

RT: 6.84 min Scan# 1576

Delta R.T. 0.01 min

Lab File: VN052079.D

Acq: 31 Oct 2018 17:38

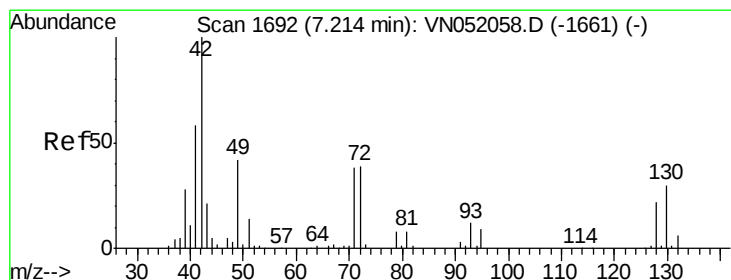
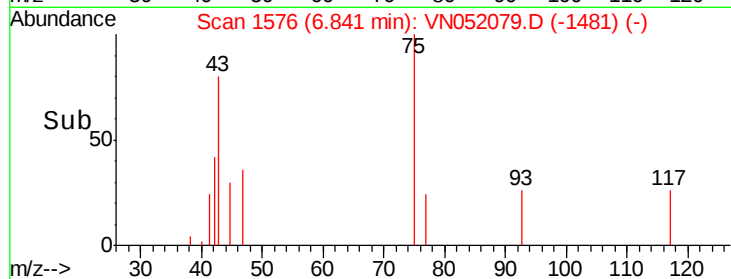
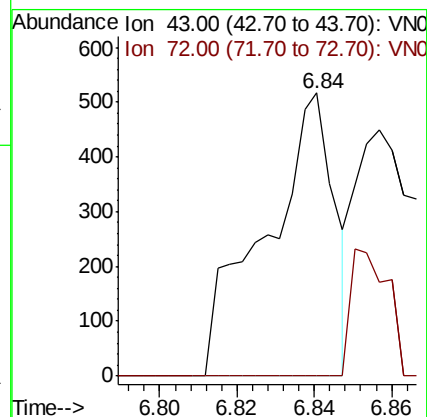
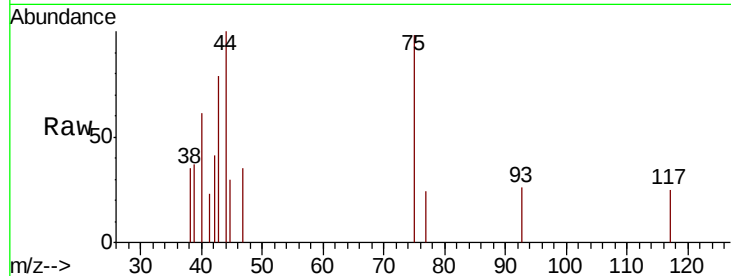
Instrument :  
MSVOA\_N  
ClientSampleId :

Tot Ion: 43 Resp: 640

Ion Ratio Lower Upper

43 100

72 0.0 20.2 30.2#



#29

Tetrahydrofuran

Concen: 0.280 ug/l

RT: 7.23 min Scan# 1696

Delta R.T. 0.01 min

Lab File: VN052079.D

Acq: 31 Oct 2018 17:38

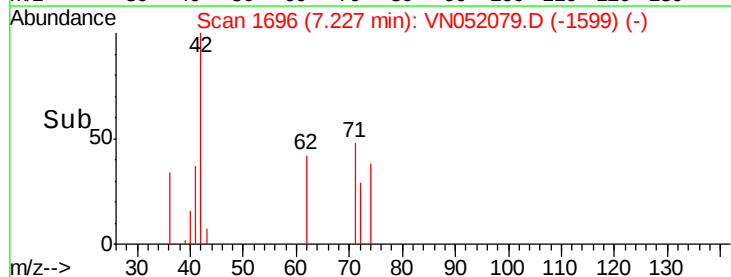
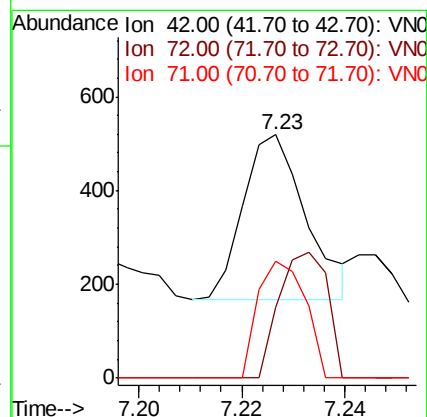
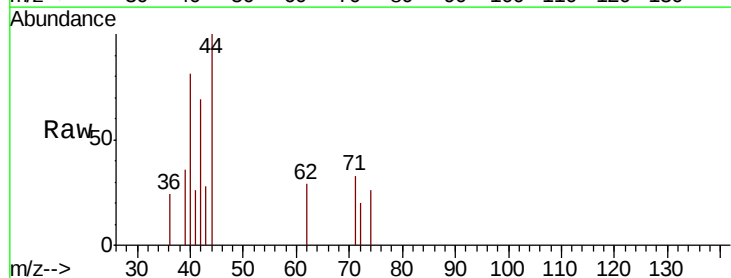
Tgt Ion: 42 Resp: 296

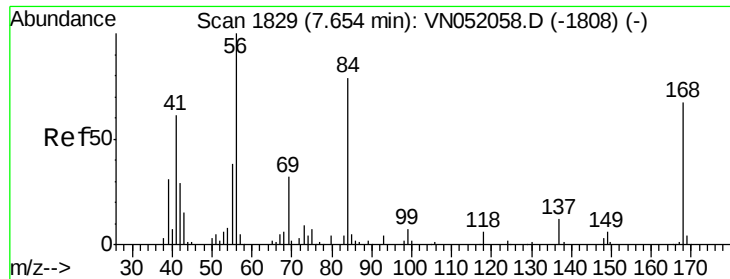
Ion Ratio Lower Upper

42 100

72 58.4 32.5 48.7#

71 53.4 30.6 46.0#

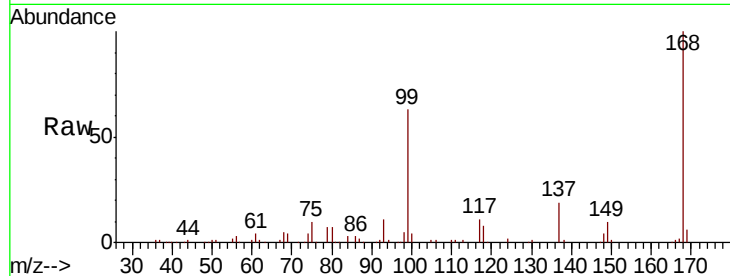




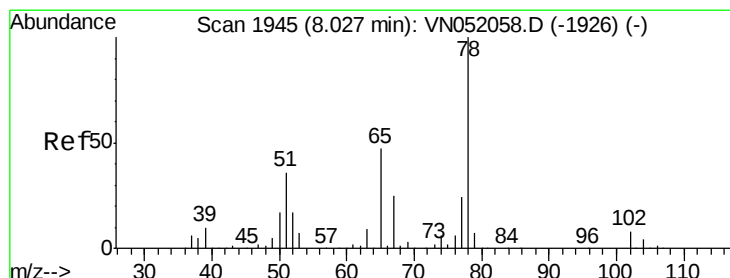
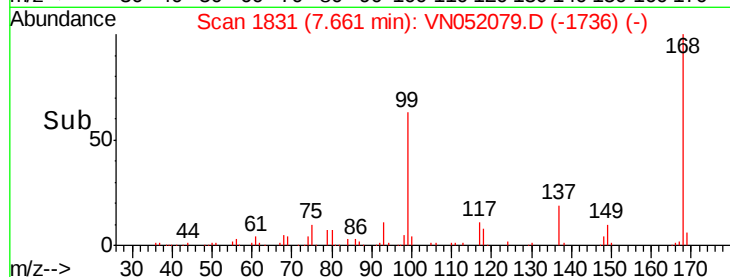
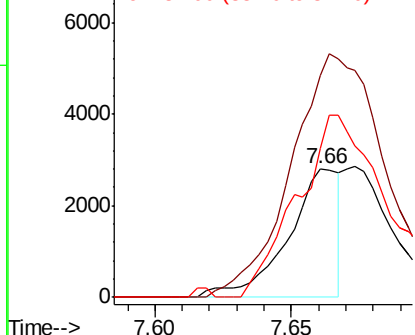
#31  
Cyclohexane  
Concen: Below Cal  
RT: 7.66 min Scan# 1831  
Delta R.T. 0.01 min  
Lab File: VN052079.D  
Acq: 31 Oct 2018 17:38

Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion: 56 Resp: 3652  
Ion Ratio Lower Upper  
56 100  
69 171.6 25.8 38.6#  
84 115.0 63.5 95.3#

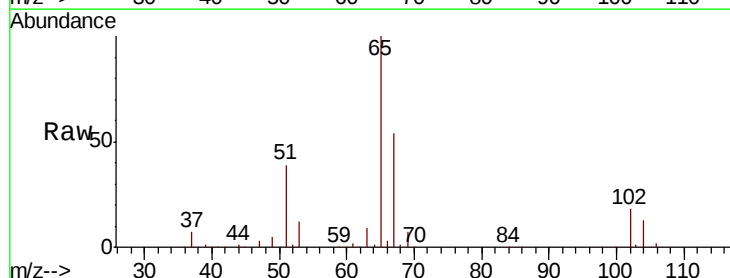


Abundance Ion 56.00 (55.70 to 56.70): VNO  
Ion 69.00 (68.70 to 69.70): VNO  
Ion 84.00 (83.70 to 84.70): VNO

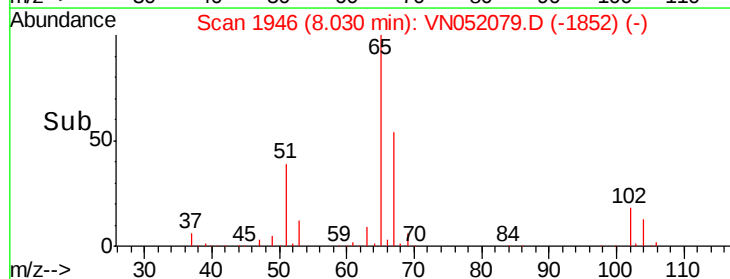
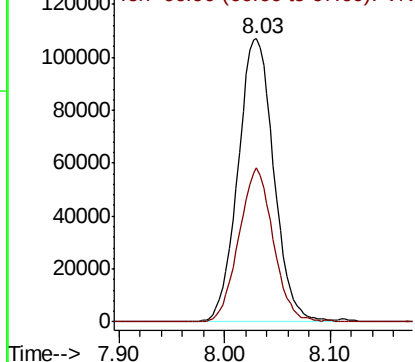


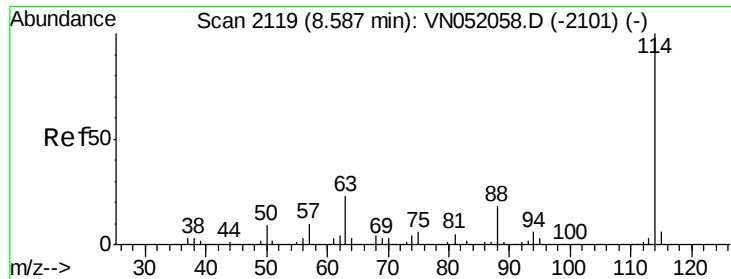
#33  
1,2-Dichloroethane-d4  
Concen: Below ug/l  
RT: 8.03 min Scan# 1946  
Delta R.T. 0.00 min  
Lab File: VN052079.D  
Acq: 31 Oct 2018 17:38

Tgt Ion: 65 Resp: 252969  
Ion Ratio Lower Upper  
65 100  
67 51.9 0.0 105.2



Abundance Ion 64.90 (64.60 to 65.60): VNO  
Ion 66.90 (66.60 to 67.60): VNO

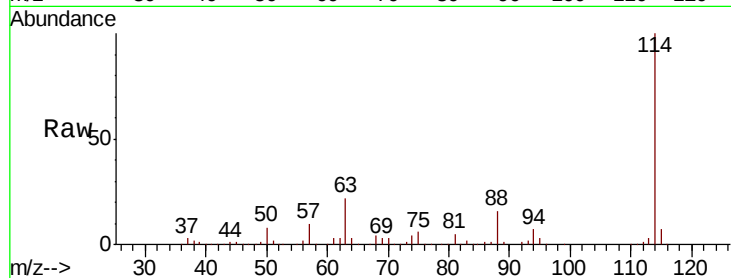




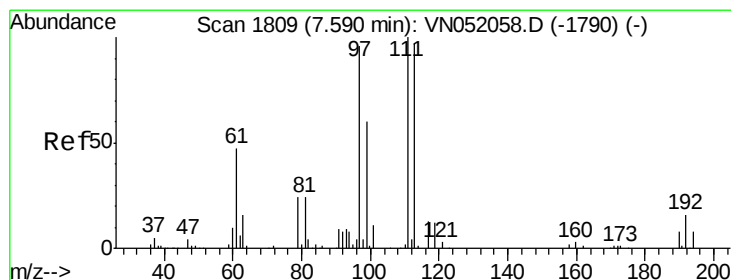
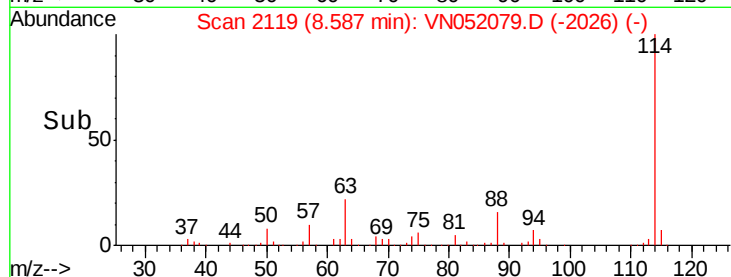
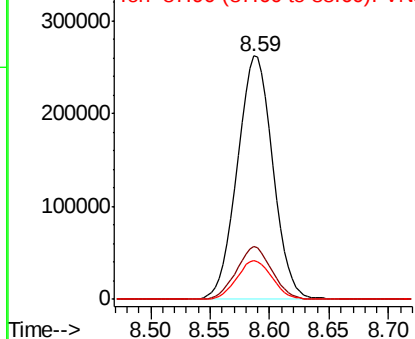
#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 8.59 min Scan# 2119  
Delta R.T. 0.00 min  
Lab File: VN052079.D  
Acq: 31 Oct 2018 17:38

Instrument :  
MSVOA\_N  
ClientSampleId :

Tot Ion:114 Resp: 543360  
Ion Ratio Lower Upper  
114 100  
63 21.8 0.0 46.0  
88 15.9 0.0 35.4

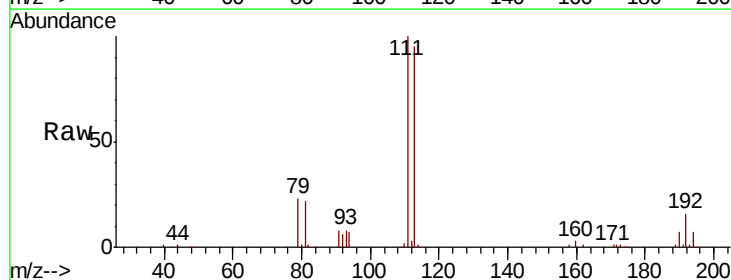


Abundance Ion 113.90 (113.60 to 114.60): V  
Ion 63.00 (62.70 to 63.70): VN  
Ion 87.90 (87.60 to 88.60): VN

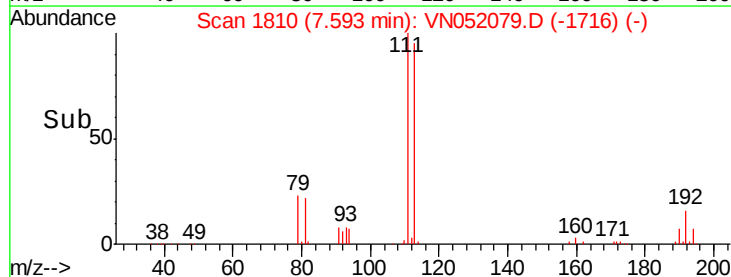
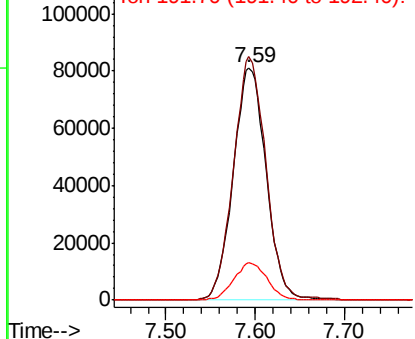


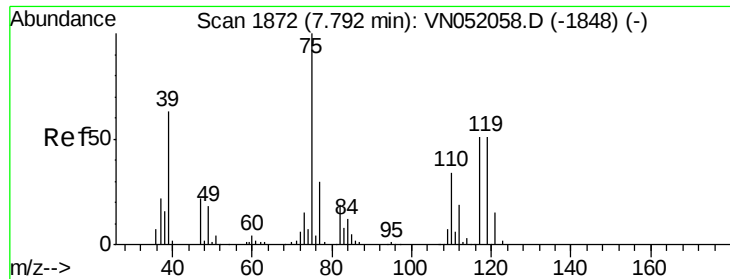
#35  
Dibromofluoromethane  
Concen: 50.000 ug/l  
RT: 7.59 min Scan# 1810  
Delta R.T. 0.00 min  
Lab File: VN052079.D  
Acq: 31 Oct 2018 17:38

Tgt Ion:113 Resp: 208143  
Ion Ratio Lower Upper  
113 100  
111 103.3 83.1 124.7  
192 16.4 12.7 19.1



Abundance Ion 112.80 (112.50 to 113.50): V  
Ion 110.80 (110.50 to 111.50): V  
Ion 191.70 (191.40 to 192.40): V

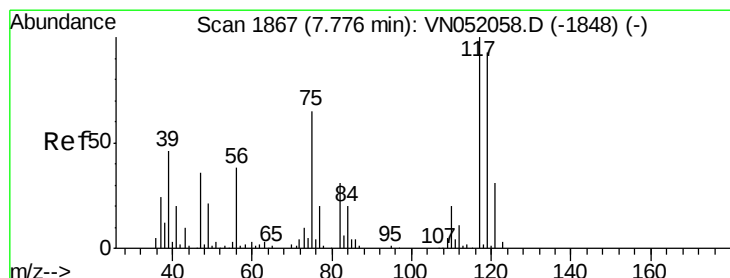
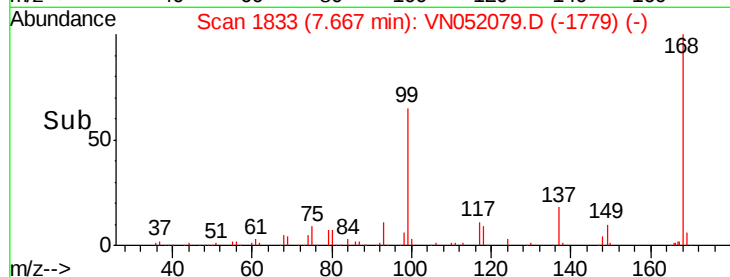
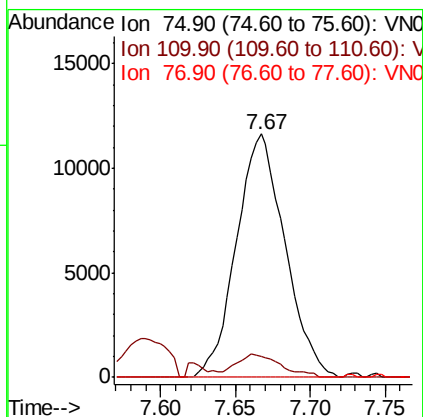
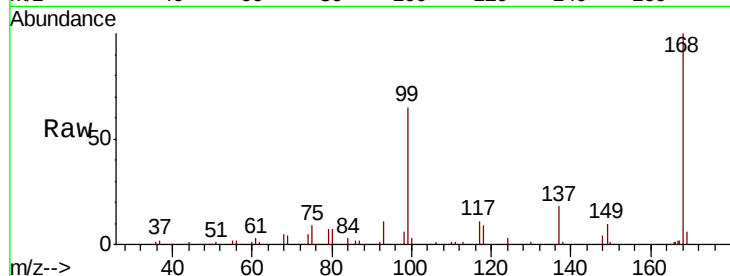




#36  
 1,1-Dichloropropene  
 Concen: 4.760 ug/l  
 RT: 7.67 min Scan# 1833  
 Delta R.T. -0.13 min  
 Lab File: VN052079.D  
 Acq: 31 Oct 2018 17:38

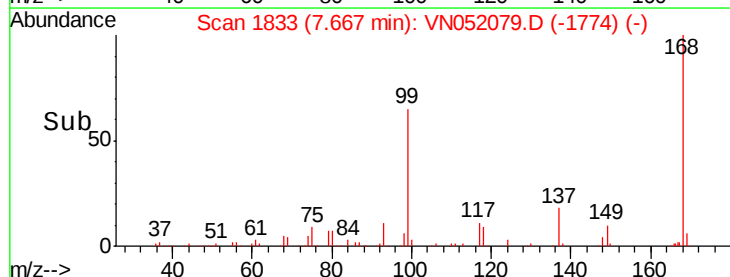
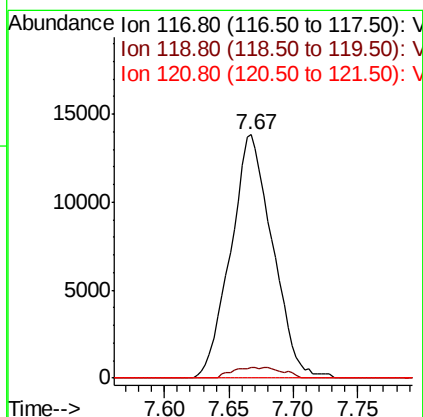
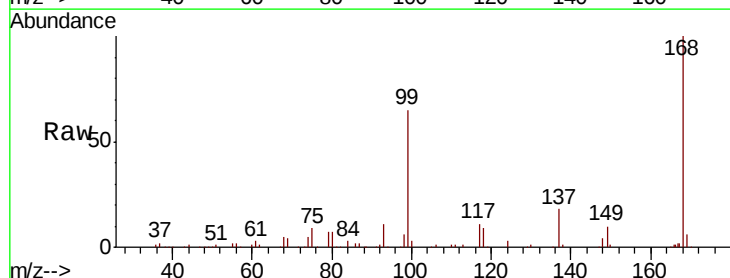
Instrument :  
 MSVOA\_N  
 ClientSampleId :

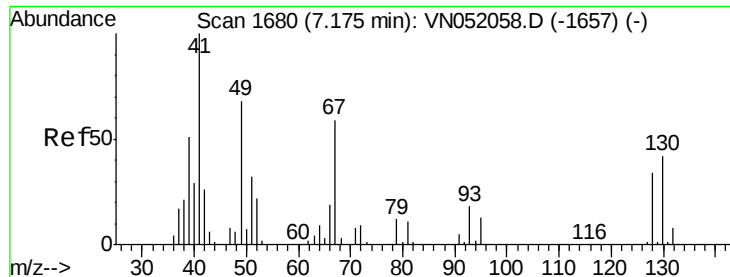
Tot Ion: 75 Resp: 26301  
 Ion Ratio Lower Upper  
 75 100  
 110 8.6 16.0 48.0#  
 77 0.0 24.5 36.7#



#38  
 Carbon Tetrachloride  
 Concen: 6.555 ug/l  
 RT: 7.67 min Scan# 1833  
 Delta R.T. -0.11 min  
 Lab File: VN052079.D  
 Acq: 31 Oct 2018 17:38

Tgt Ion: 117 Resp: 31227  
 Ion Ratio Lower Upper  
 117 100  
 119 4.3 74.8 112.2#  
 121 0.0 25.1 37.7#

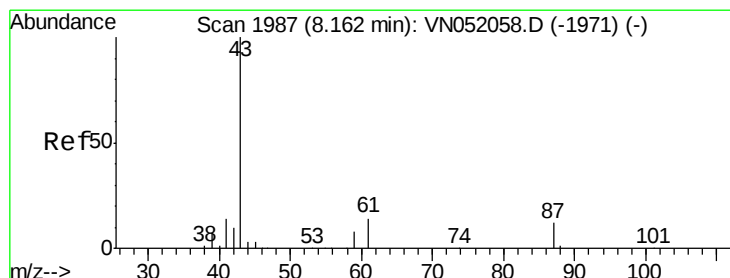
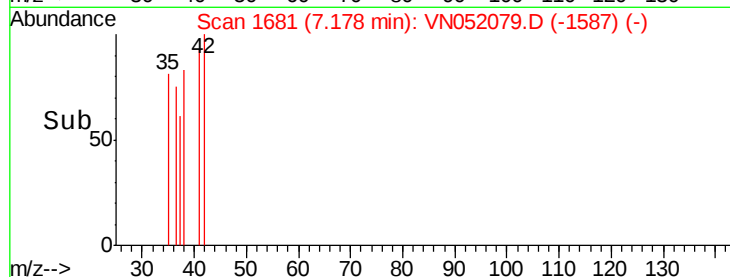
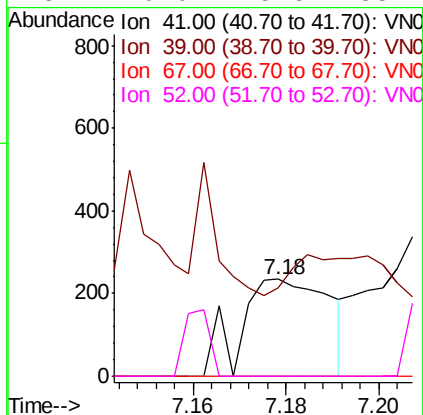
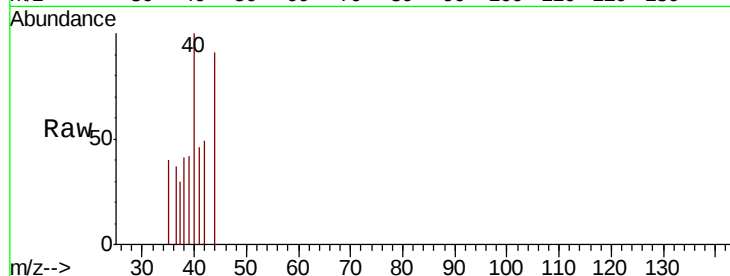




#41  
Methacrylonitrile  
Concen: 0.306 ug/l  
RT: 7.18 min Scan# 1681  
Delta R.T. 0.00 min  
Lab File: VN052079.D  
Acq: 31 Oct 2018 17:38

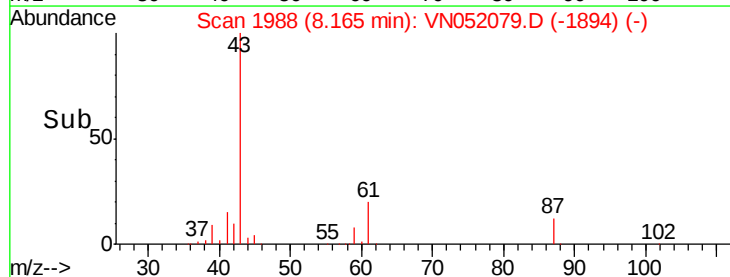
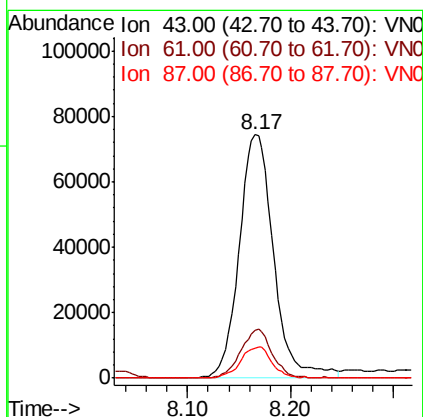
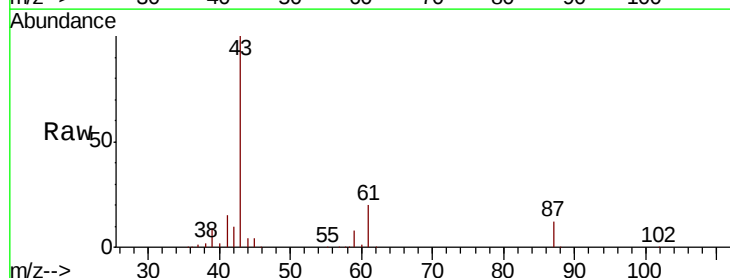
Instrument :  
MSVOA\_N  
ClientSampled :

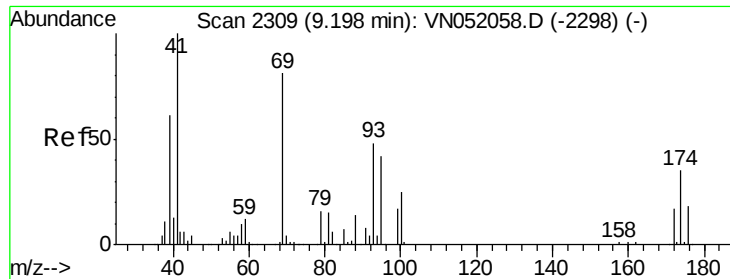
Tot Ion: 41 Resp: 314  
Ion Ratio Lower Upper  
41 100  
39 101.0 33.2 49.8#  
67 0.0 63.5 95.3#  
52 0.0 25.6 38.4#



#43  
Isopropyl Acetate  
Concen: 26.310 ug/l  
RT: 8.17 min Scan# 1988  
Delta R.T. 0.00 min  
Lab File: VN052079.D  
Acq: 31 Oct 2018 17:38

Tgt Ion: 43 Resp: 173046  
Ion Ratio Lower Upper  
43 100  
61 18.2 15.4 23.0  
87 11.6 9.8 14.8

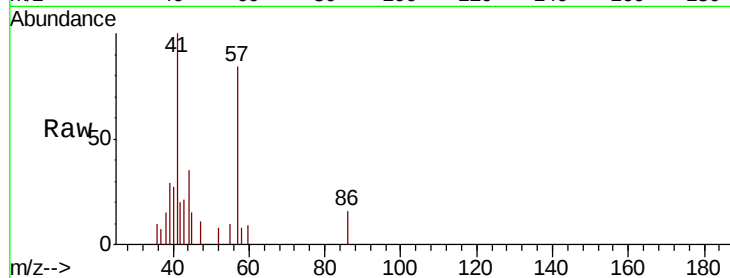




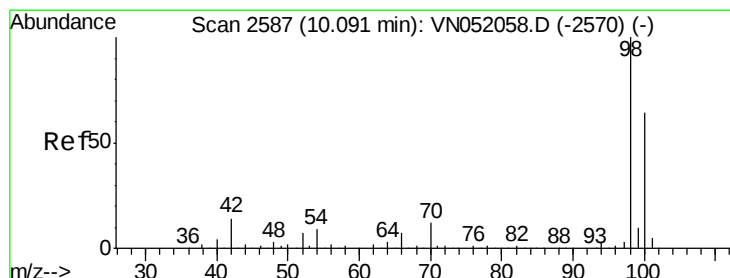
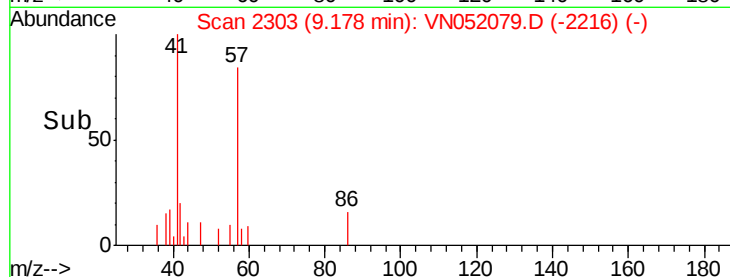
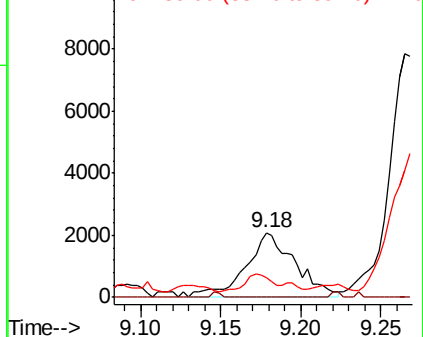
#48  
Methvl methacrylate  
Concen: 1.334 ug/l  
RT: 9.18 min Scan# 2303  
Delta R.T. -0.02 min  
Lab File: VN052079.D  
Acq: 31 Oct 2018 17:38

Instrument :  
MSVOA\_N  
ClientSampleId :

Tot Ion: 41 Resp: 4447  
Ion Ratio Lower Upper  
41 100  
69 0.0 67.1 100.7#  
39 14.1 50.5 75.7#

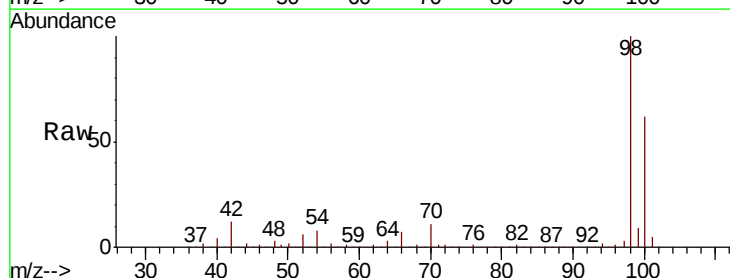


Abundance Ion 41.00 (40.70 to 41.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 39.00 (38.70 to 39.70): VN0

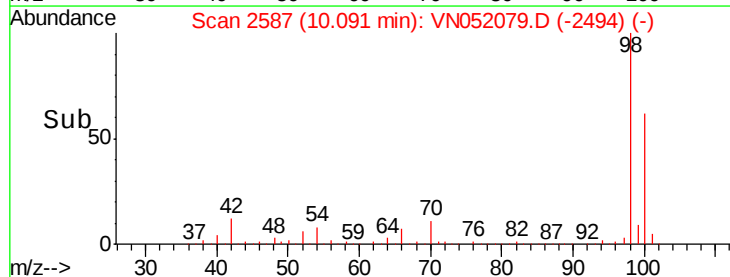
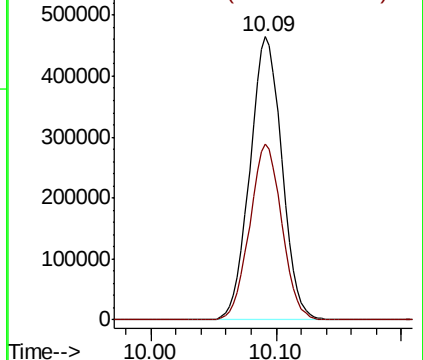


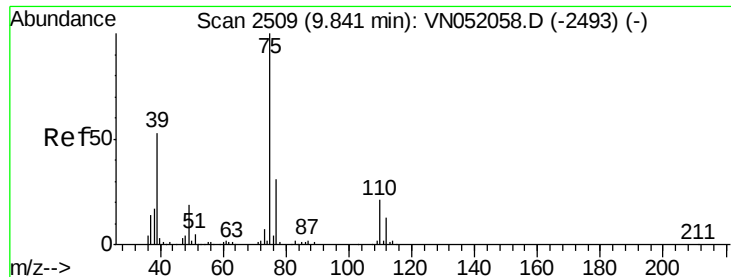
#50  
Toluene-d8  
Concen: N.D. ug/l  
RT: 10.09 min Scan# 2587  
Delta R.T. 0.00 min  
Lab File: VN052079.D  
Acq: 31 Oct 2018 17:38

Tgt Ion: 98 Resp: 825062  
Ion Ratio Lower Upper  
98 100  
100 62.4 51.4 77.2



Abundance Ion 98.00 (97.70 to 98.70): VN0  
Ion 100.00 (99.70 to 100.70): VN0





#54

cis-1,3-Dichloropropene

Concen: 0.241 ug/l

RT: 9.90 min Scan# 2529

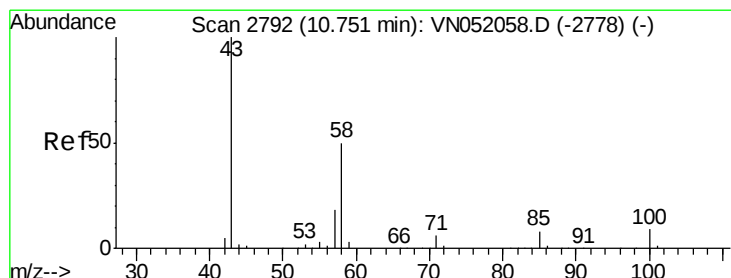
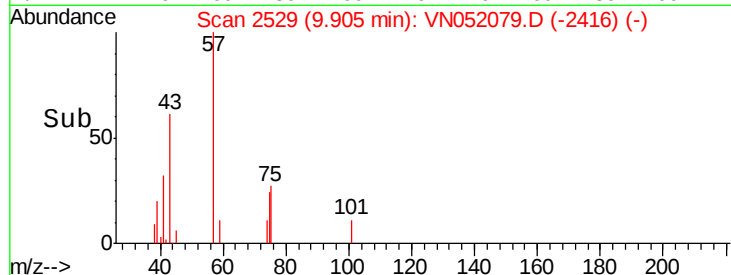
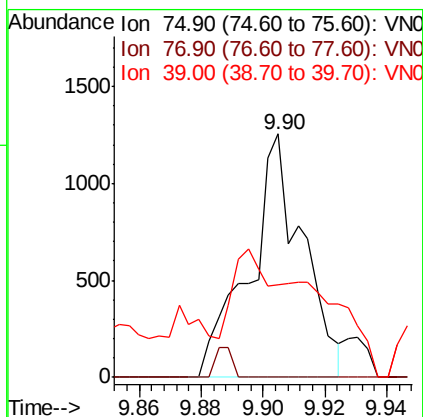
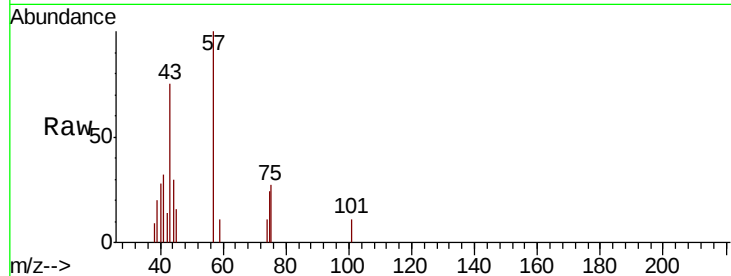
Delta R.T. 0.06 min

Lab File: VN052079.D

Acq: 31 Oct 2018 17:38

Instrument :  
MSVOA\_N  
ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 75    | Resp: | 1503  |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 77       | 0.0   | 25.0  | 37.4# |
| 39       | 16.3  | 42.3  | 63.5# |



#59

2-Hexanone

Concen: 4.474 ug/l

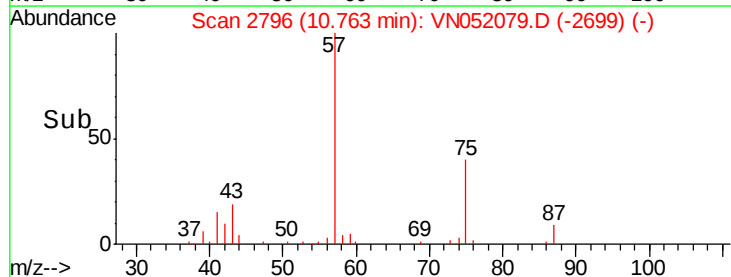
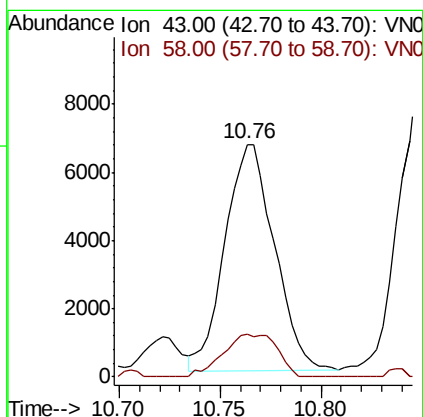
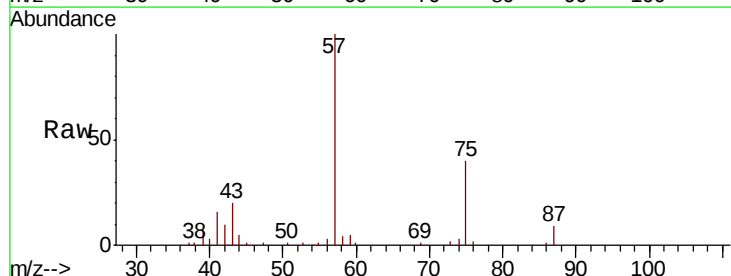
RT: 10.76 min Scan# 2796

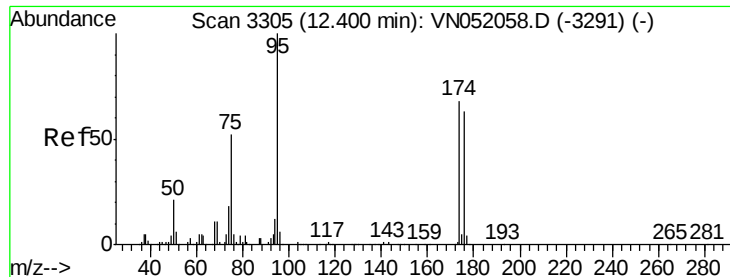
Delta R.T. 0.01 min

Lab File: VN052079.D

Acq: 31 Oct 2018 17:38

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 11398 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 20.6  | 25.2  | 75.6# |





#62

4-Bromofluorobenzene

Concen: N.D. ug/l

RT: 12.40 min Scan# 3305

Delta R.T. 0.00 min

Lab File: VN052079.D

Acq: 31 Oct 2018 17:38

Instrument :

MSVOA\_N

ClientSampled :

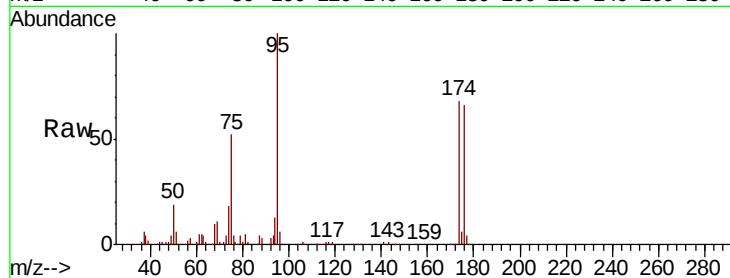
Tot Ion: 95 Resp: 281668

Ion Ratio Lower Upper

95 100

174 69.7 0.0 131.8

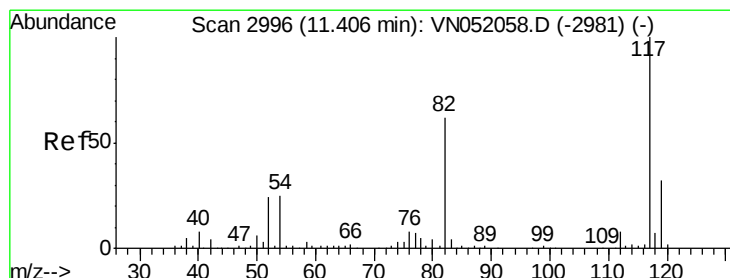
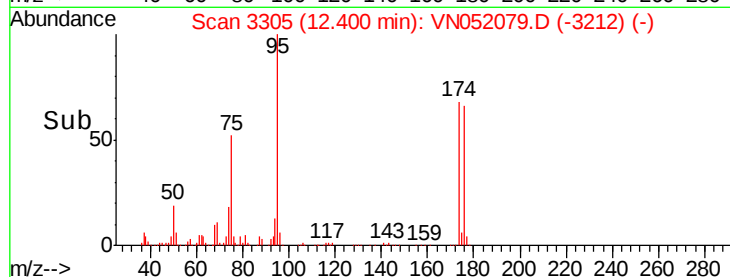
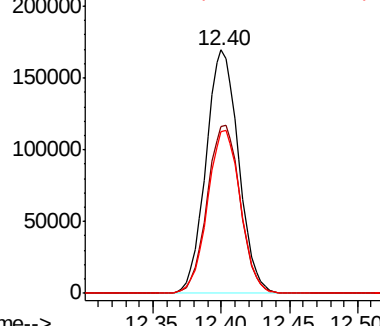
176 67.5 0.0 126.0



Abundance Ion 94.90 (94.60 to 95.60): VN052079.D (-2903) (-)

Ion 173.80 (173.50 to 174.50): VN052079.D (-2903) (-)

Ion 175.80 (175.50 to 176.50): VN052079.D (-2903) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.41 min Scan# 2996

Delta R.T. 0.00 min

Lab File: VN052079.D

Acq: 31 Oct 2018 17:38

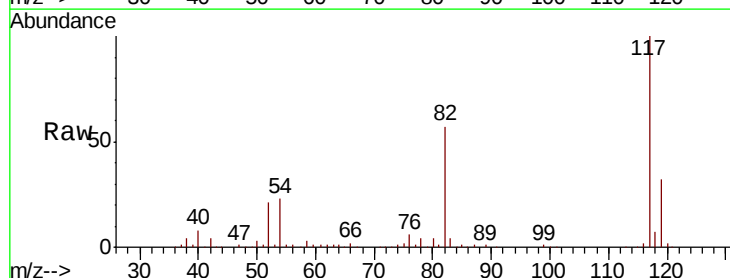
Tgt Ion: 117 Resp: 516311

Ion Ratio Lower Upper

117 100

82 56.6 49.9 74.9

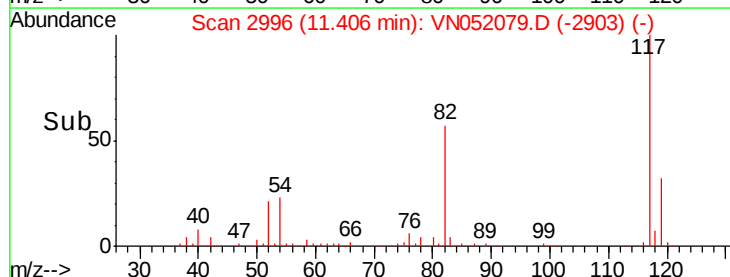
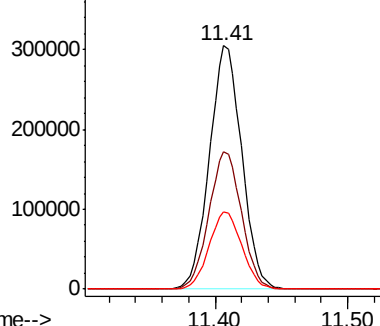
119 31.6 25.7 38.5

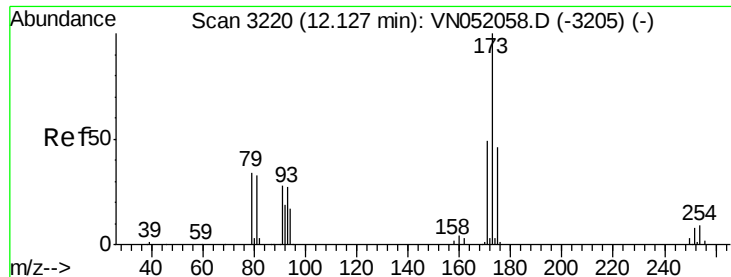


Abundance Ion 116.90 (116.60 to 117.60): VN052079.D (-2903) (-)

Ion 82.00 (81.70 to 82.70): VN052079.D (-2903) (-)

Ion 118.90 (118.60 to 119.60): VN052079.D (-2903) (-)





#71

Bromoform

Concen: 2.536 ug/l

RT: 12.39 min Scan# 3302

Delta R.T. 0.26 min

Lab File: VN052079.D

Acq: 31 Oct 2018 17:38

Instrument :

MSVOA\_N

ClientSampleId :

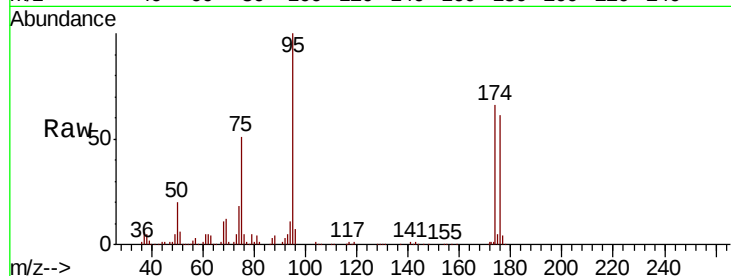
Tot Ion:173 Resp: 822

Ion Ratio Lower Upper

173 100

175 0.0 23.9 71.7#

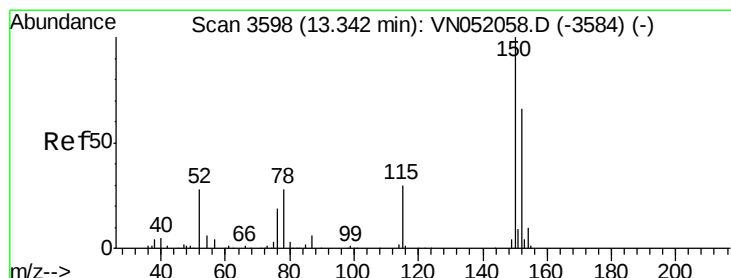
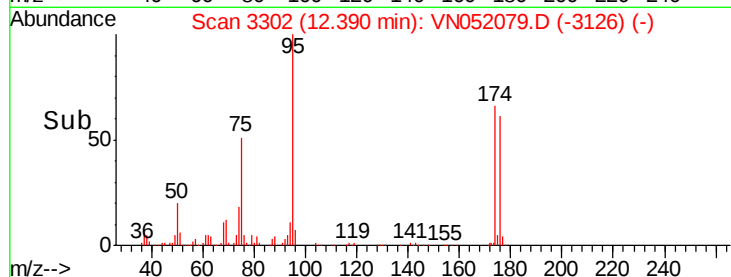
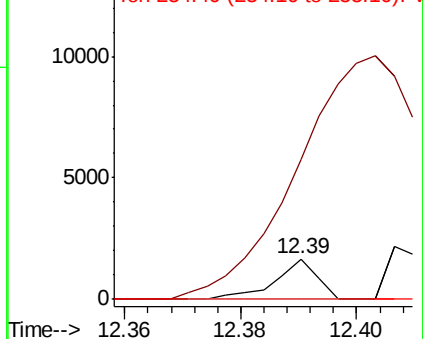
254 0.0 0.0 0.0



Abundance Ion 172.70 (172.40 to 173.40): V

Ion 174.70 (174.40 to 175.40): V

Ion 254.40 (254.10 to 255.10): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.35 min Scan# 3599

Delta R.T. 0.00 min

Lab File: VN052079.D

Acq: 31 Oct 2018 17:38

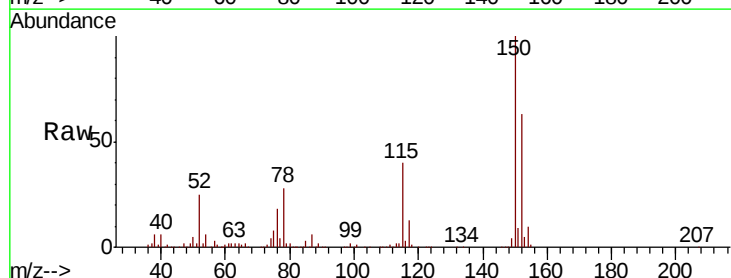
Tgt Ion:152 Resp: 203036

Ion Ratio Lower Upper

152 100

115 63.9 31.6 95.0

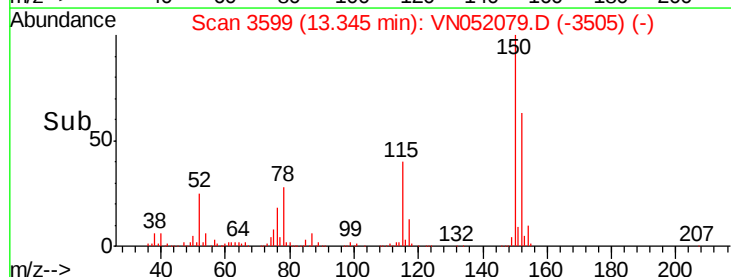
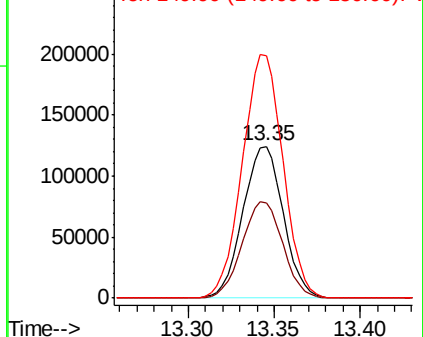
150 161.3 0.0 345.0

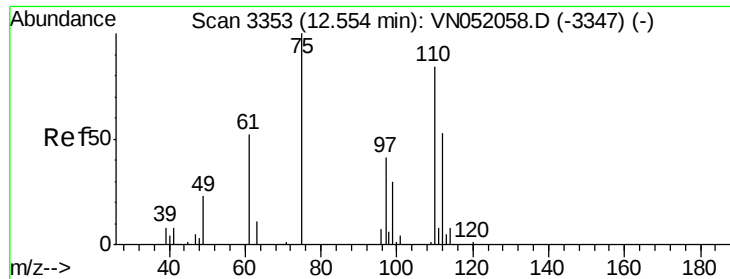


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V

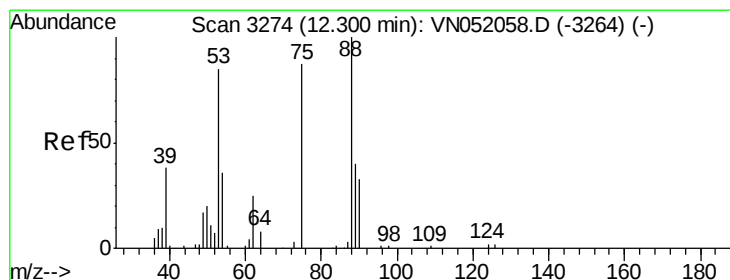
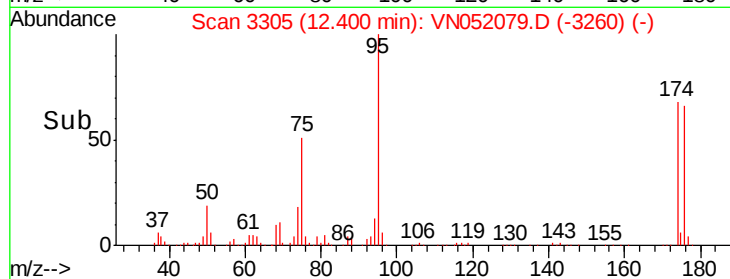
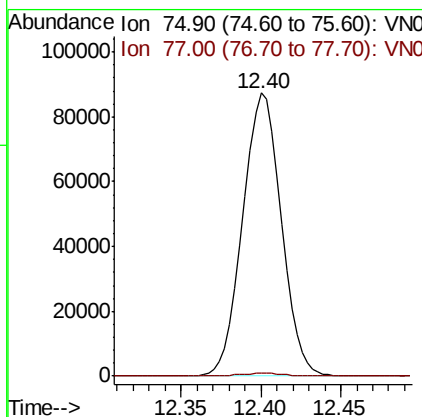
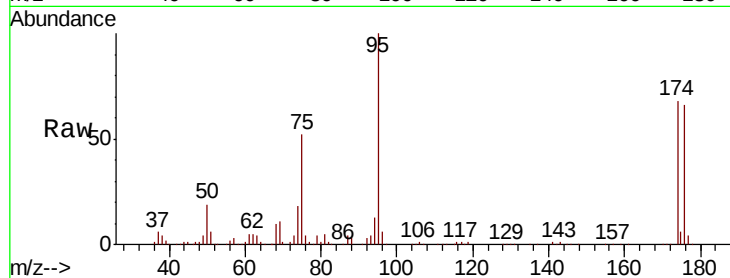




#76  
 1,2,3-Trichloropropane  
 Concen: 38.725 ug/l  
 RT: 12.40 min Scan# 3305  
 Delta R.T. -0.15 min  
 Lab File: VN052079.D  
 Acq: 31 Oct 2018 17:38

Instrument :  
 MSVOA\_N  
 ClientSampled :

Tot Ion: 75 Resp: 143927  
 Ion Ratio Lower Upper  
 75 100  
 77 1.2 0.0 0.0#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 128.534 ug/l  
 RT: 12.40 min Scan# 3305  
 Delta R.T. 0.10 min  
 Lab File: VN052079.D  
 Acq: 31 Oct 2018 17:38

Tgt Ion: 75 Resp: 143927  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 81.8 122.6#  
 89 0.0 36.6 54.8#

